

BLESSING GREENHOUSES AND COMPOSTING FACILITY

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

9273 DRAPER ROAD

P.O. BOX 647

MILFORD, DE 19963

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DECEMBER 28, 2011

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JUNE 2012, FEBRUARY AND JULY 2014

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SWPPP REVISION HISTORY

Date of Revision	Plan Revision
June 2012	<p>Revised to address deficiencies noted in the following DNREC correspondence:</p> <ul style="list-style-type: none"> ○ State of DE Agreement and Secretary's Order Between DNREC and Blessing Greenhouses and Compost Facility <i>Effective March 19, 2012</i> ○ State of DE Notice of Violation issued <i>February 13, 2012</i>.
February 19, 2014	<p>Revised to address deficiencies noted in DNREC Correspondence dated August 20, 2013 addressed to Mr. Bruce Blessing from Jennifer Roushey.</p> <p>Revised to delete reference to AST-2, 2,000 gallon diesel fuel tank. This tank was scrapped and removed from the Facility. Tank AST-3, 100 gallon diesel fuel tank associated with the Emergency Generator, was renumbered to AST-2.</p>
July 15, 2014	<p>Revised to address DNREC comments. Specifically clarified spill reporting, corrective action implementation for CSEs and AST information.</p>

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MANAGEMENT CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Blessing Greenhouses and Compost Facility

Name (Printed)

Title

Signature

Date

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1.0 INTRODUCTION

The Blessing Greenhouses and Compost Facility has prepared this Storm Water Pollution Prevention Plan (SWPPP) for its 9273 Draper Road, Milford, DE Facility. The Blessing Greenhouses and Compost Facility is involved in several activities to include: horticultural products for greenhouse operation; compost manufacturing and blending; and grinding and storage of forest clearing debris for yard waste.

1.1 PLAN APPLICABILITY AND OBJECTIVES

The primary 4-digit Standard Industrial Classification (SIC) code for the Blessing Greenhouses and Compost Facility is 2875 (Agricultural Chemicals). Industries classified under SIC code 2875 are required to meet U.S. Environmental Protection Agency (USEPA) and the State of Delaware, Department of Natural Resources and Environmental Control's (DNREC) Water Resources Division (Surface Water Discharges Section) storm water requirements. These requirements are summarized below.

The Clean Water Act Amendments of 1987 authorized USEPA to develop regulations to control storm water discharges to surface waterbodies under the National Pollutant Discharge Elimination System (NPDES) permitting program. In Delaware, the NPDES permitting program is administered by the DNREC. The DNREC has adopted final storm water permitting rules for industrial discharges in Delaware under the Delaware NPDES program. The Blessing Greenhouses and Compost Facility is operating under the requirements of NPDES General Industrial Storm Water Permit.

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared as required by the Facility's NPDES General Industrial Storm Water Permit (Appendix A) as well as its Discharge and Marketing Permit, State Permit Number DM0014/05. The SWPPP has two (2) main objectives:

1. To help identify the potential sources of pollution that may affect the quality of storm water discharges from the Blessing Greenhouses and Compost Facility; and
2. To describe and ensure implementation of Best Management Practices (BMPs) to reduce pollutants in storm water discharges.

1.2 PLAN IMPLEMENTATION

Overall responsibility for compliance with the implementation and maintenance of the SWPPP rests with Mr. Bruce Blessing, owner of the Blessing Greenhouses and Compost Facility.

The Blessing Greenhouses and Compost Facility maintains a “Pollution Prevention Team”, whose primary responsibility is to assist the Facility owner with implementation and maintenance of the Facility’s SWPPP. The Pollution Prevention Team (PPT) members are outlined in Table 1 (Appendix B). The activities and responsibilities of the team, which address all aspects of the Facility’s SWPPP, are outlined within the Worksheet as well.

The SWPPP is a dynamic document and is modified if processes, materials, or conditions change within the Facility or as required by applicable regulations. If any of the following issues occur, this SWPPP must be amended:

- A significant change to the Site that could impact storm water pollution.
- The actions outlined in the plan fail to protect against pollution.
- Significant sources or potential sources are identified as a result of any inspection or visual monitoring.
- A Total Maximum Daily Load (TMDL) to which the permittee is subject has been established
- A specific request by the DNREC.

This SWPPP will be retained on-Site and made available to the USEPA, state and local agencies, or the public upon request. Any questions or requests concerning the SWPPP for the Facility should be made to Mr. Bruce Blessing, owner.

2.0 SITE DESCRIPTION AND CONTACT INFORMATION

A description of the Site, including the physical layout and surrounding land use, Facility operations and material storage is presented in the following sections. A Facility map is attached and identifies: all of the buildings at the Site; areas where industrial materials are stored, handled, and used; the drainage areas associated with each storm water outfall; all storm water drainage and collection systems; structural control; surface waters that receive storm water discharges; direction of storm water flow; and locations of activities exposed to storm water.

2.1 SITE DESCRIPTION

The Blessing Greenhouses and Compost Facility occupies approximately 16.63 acres. As shown in Figure 2, the Facility consists of an office building, maintenance shops, greenhouses, scale house, pre-compost storage area, bunker staging area, screen material staging area, drum storage area and two (2) above ground storage tanks. Surrounding land use is rural farm land.

2.2 FACILITY OPERATIONS

The Blessing Greenhouses and Compost Facility is involved in several activities in which horticultural products for greenhouse operation; professional landscaping; turf establishment and home gardening are produced or blended. Grinding and storage of forest clearing debris and yard waste for the horticulture and agriculture markets is also performed at the Site. Formerly, the Site was an established vegetable cannery with much of the infrastructure still in place. After the cannery ceased operation, the Site became occupied by greenhouse operations, consistent with historical agribusiness operation. The more recent added activity of production of horticultural products is also consistent with the historical Site use and the production of consumer goods. A brief description of Facility operations is presented in the sections below.

2.2.1 Greenhouse Operations

Eleven (11) greenhouses are utilized at the Facility to grow a variety of plants. Approximately 90% of the greenhouse operation is conducted under cover. Storage of greenhouse supplies in general is under cover within one (1) or more of the existing roofed, block building structures. Outdoor storage of greenhouse materials primarily consists of plastic materials that would not be degraded by the weather. Potted plants ready for sale are occasionally stored outside. Six (6) propane tanks are utilized to operate the greenhouses. An emergency generator is also located near the greenhouses to provide back-up power should an outage occur. The emergency generator is fueled by a 100 gallon diesel fuel tank which is self-contained.

2.2.2 Composting

The Facility is authorized to produce and store compost material in accordance with its Distribution and Marketing Permit, State Permit Number DM0014/05. Compost is produced by mixing various raw materials with bulk materials, curing the materials and then screening (optional).

- **Pre-Compost and Blending:** Material to be composted is received into the enclosed compost area in watertight containers. Material consists of animal manures, food processing waste, dewatered wastewater residuals from municipalities and food processors plus necessary wood fiber bulking material. The raw material is free of excess water and has a solids content of 17% or greater. This material is staged at the pre-compost location at which time bulking material is blended. This mixed compost substrate does not contain free water and must have a solids content of 40% to 60% prior to and during the process. This reduces leachate production and reduces water ponding in the composting area.

- **Curing:** After the initial pre-compost process, a curing phase is necessary to allow the micro-activity in the compost to lessen. Currently, one (1) large stockpile of this material is maintained on compacted, clay fill ground cover to prevent percolation of leachate into the ground. The material will be located to bunker as required by the Facility's Secretary's Order. Other curing compost is stored in lined, aerated, concrete walled bunkers located at the Site.
- **Screening:** Finished, screened compost is stored on concrete pad (or at times the asphalt pad) near the scale house at the north end of the Facility, impounded by three (3) walls prior to sale or other use.

2.2.3 Soil Blending and Storage

Soil blending and storage is another aspect of the operational activity at the Site. Poor quality soil is transported to the Site as a component of the final premium topsoil product. The poor quality soil is stored on the ground, uncovered at the Site. Other ingredients such as finished compost and clay/silt soil ingredients are stored on the ground, uncovered at the Site pending blending, screening. Lime may be utilized as part of the blending process, based on customer demand, and is stored on the concrete and/or asphalt pad near the scale house. The final premium topsoil is stored on the ground, uncovered prior to sale and ultimate removal.

2.2.4 Wood Fiber Grinding and Storage

Wood fiber grinding and storage at the Site is a component of the compost operation. Wood fiber is either shipped in or ground on-Site. Yard waste is accepted and later ground on-Site as part of the wood fiber operation. Imported material can consist of raw ground wood or premium wood mulch. The wood mulch is sold as one of the Blessing Greenhouses horticultural products. The raw grindings area used as bulking material in the compost operation or custom ground to meet the specifications for sale in other market, primarily the poultry industry. Wood grindings and the imported wood fiber

materials are stored on bare ground, uncovered on-Site. Wood fiber is also employed in the topsoil operation as an adsorbent to reduce the high potential for runoff from that activity.

2.2.5 Agricultural Operations

Other activities at the Site include agricultural operations. Liquid organic waste is used as a fertilizer in the agricultural operation conducted from this Site, under several State approvals. Transfer of liquid organic material to spreading equipment is primarily conducted in the field. Some liquid organic materials are collected on the Site and stored in enclosed tanks or a concrete pit until adequate volumes for land application accumulate. The liquid organic waste is food-processing waste from the poultry industry, brewing industry, and restaurant grease traps.

Sealed tanks are used for transporting liquid non-hazardous organic waste, which typically contains less than 10% solids. Systems range from tank wagons attached to farm tractors for short distances and small quantities, to 6,000 gallon tankers for over-the road transport.

2.2.6 Maintenance Activities

The remainder of the agricultural activity is typical of most farming scenarios. When not in use, farm equipment and equipment utilized to operate the Facility are stored outside and maintained so as not to leak fuel or other fluids onto the ground. There are enclosed mechanical shops for equipment repair and maintenance. All materials from this activity are stored undercover.

2.2.7 Pesticide Application

Mr. Bruce Blessing is certified in the State of Delaware as a pesticide applicator. Pesticides are purchased as needed and a small supply is stored at the Facility within one of the maintenance shops. At times, pesticides may be custom applied by outside contractors

should Mr. Blessing not be available for application. In the event that collected storm water cannot be land applied within a 48 hour timeframe, pesticides are applied to prevent mosquito habitat formation.

2.2.8 Petroleum and Material Storage

To support the maintenance operations of the Facility, various petroleum products and engine fluids are stored in two (2) above ground storage tanks (ASTs), drums or smaller containers at both indoor and outdoor locations. These materials include diesel fuel, lubrication oil and antifreeze. Additionally, a 100 gallon diesel fuel tank associated with an emergency generator is used to provide back up power to the greenhouses in the event that an emergency power outage were to occur.

AST-1 is a 1,000 gallon aboveground diesel fuel storage tank located near the Scale House (see Figure 2). AST-1 is constructed of steel. At this time AST-1 is not in use. The tank has been inspected and is determined to be empty. The tank is provided with a label indicating the tank is *closed and out of service* (with date). The Facility has removed and scrapped the former AST-2 tank which was a 2,000 gallon diesel fuel tank near the Maintenance Shop (closest to the Office). Should the Facility utilize the AST-1 in the future, the tank will be provided with secondary containment prior to filling with product. Although empty, the all tanks will still be inspected as part of the Facility's routine inspection program. Additionally, spill response measures are available and will be employed should a spill or leak occur. AST-3 is a 100 gallon diesel fuel tank provided as part of the emergency generator operation has been renumbered as AST-2. This tank is self-contained within the generator unit; therefore is provided with secondary containment.

Drums and 5-gallon containers of various virgin oils and engine fluids are maintained in inventory. These materials are staged within the maintenance shops or within the Greenhouses (see Figure 2). Storage locations for these materials can change from day to day depending upon operational demand. Precautions will be taken to ensure proper material management.

2.2.9 Scrap Material and Solid Waste Storage

The Facility utilizes dumpsters to store refuse, cardboard, farm waste and scrap material. The Facility also has a scrap metal/equipment staging area (often referred to as the boneyard). The locations of material storage areas are shown in Figure 2.

2.3 DRAINAGE

The topography of the Blessing Greenhouses and Compost Facility is relatively flat. Storm water tends to flow south and east toward the Slaughter Creek, the nearest surface waterbody which ultimately discharges to the Delaware Bay. Two (2) storm water outfalls (Outfall #1 and Outfall #2) exist.

- Outfall #1: A vegetated swale provided with rip-rap is used to convey storm water from the north-west portion of the Office and associated parking lot. The swale discharges to a broad natural wetland before discharging to Slaughter Creek. The natural wetland provides over 100 feet of buffer from the site to the creek. The Facility identifies this discharge location at Outfall #1.
- Outfall #2: Storm water runoff associated with the western portion of the bunker staging area is conveyed via sheetflow to the surrounding farm field, where it eventually collects in an eroded gulley and is conveyed to a broad natural wetland before discharging to Slaughter Creek. The natural wetland provides over 100 feet of buffer from the site to the creek. The Facility identifies this discharge location at Outfall #2.

The Facility prohibits the discharge of storm water that comes in contact with its composting-related activities. To prevent the discharge of storm water that comes in contact with composting-related activities, the Facility utilizes a concrete pit, depressions and sumps to collect storm water for land application, as approved by DNREC.

Pre-Compost, Maintenance Shop and Curing Storm Water Management: Specifically, storm water that falls near the composting areas (pre-compost and curing) is collected and land applied. The pre-compost area is provided with a 50,000 gallon concrete pit which is used to collect accumulated storm water for land application. Additionally, small depressions exist near the Maintenance Shop, which are used to collect storm water. Storm water is collected from these depressions where it is land applied. Collected storm water is land applied within 48 hours of collection to prevent the development of mosquito habitat. In the event that collected storm water cannot be land applied within 48 hours, pesticide application will be provided by a certified applicator.

Office Area and Greenhouse Storm Water Management: The Facility is sloped to direct storm water to the north-east corner of Greenhouse #1, where it is collected in sump #2. Storm water can be collected from this sump, via vacuum truck, for land application or the storm water can be conveyed via an 18" underground piping to a series of sumps located across the driveway from sump #2. Collected storm water is land applied within 48 hours of collection to prevent the development of mosquito habitat. In the event that collected storm water cannot be land applied within 48 hours, pesticide application will be provided by a certified applicator.

Bunker Storm Water Management: The bunker staging area, located north-west of the Office, is slightly sloped to allow storm water to accumulate within slight depressions and collected for land application. Additionally, the Facility also utilizes sumps #3, #4, and #5 to collect storm water from heavy storm events. The bunker staging area closest to the scale house is slightly sloped to direct storm water to sump #1, where it is collected for land application. In the event storm water is not collected directly from each sump, the sumps are connected in series (sumps 1 through 5) via 18" underground piping, allowing the flow of storm water from sump #1, to sump #2, to sump #3, to sump #4, ultimately reaching sump #5. Collected storm water is land applied within 48 hours of collection to prevent the development of mosquito habitat. In the event that collected storm water cannot be land applied within 48 hours, pesticide application will be provided by a certified applicator.

Infrastructure Storm Water Management: All other storm water from the Facility, including roofs from infrastructure and staging areas infiltrates into the ground or discharges as sheetflow before infiltrating into the ground.

2.3.1 Historical Outfalls

Two (2) storm water outfalls were eliminated from this Facility. These outfalls discharged from the southern wetland area of the site and served the old cannery site. The exact extent of the collection system is unknown. Both storm water outfalls were eliminated by plugging. Water that accumulates on the surface of the ground and in depressions as a result of plugging these outfalls is collected via vacuum tanker trucks and land applied onto approved farmland so as not to cause runoff.

Additionally, an old concrete wastewater treatment clarifier and pump station is located and pump station is located on the southeast end of the Facility. It has been disabled and the outfall pipe permanently sealed. The pump station, now referred to as the concrete pit, currently functions to accumulate storm water runoff within the pre-compost area. The concrete pit has a capacity of 50,000 gallons, functions as a sump from which product contaminated water may be pumped and land applied. This practice prevents such material from finding a potential alternate route off of the Site. It is inspected after each rain event and pumped out as needed.

3.0 POTENTIAL POLLUTANT SOURCES

This section describes significant materials that are typically stored and/or handled outdoors at the Facility that may be considered a potential pollutant source if exposed to precipitation. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, byproducts, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product.

To assess potential sources of storm water pollutants at the Blessing Greenhouses and Compost Facility, the following was evaluated as described in the sections below:

- Inventory of materials used at the Facility that could be exposed to storm water;
- History of spills at the Facility; and
- Presence of non-storm water discharges.

3.1 INVENTORY OF EXPOSED MATERIALS

The materials listed below are either stored outdoors or could potentially be exposed to storm water at the Facility as a result of handling or use. A more detailed summary of the exposed materials is presented in Table 1, Appendix C.

- Greenhouse Material
- Pre-Compost and Blending Material
- Curing Materials
- Screened Compost
- Diesel Fuel and lubrication materials
- Solid Waste and Scrap material
- Pesticides

3.2 POTENTIAL RISK EVALUATION

The potential spill sources listed in Table 2 (see Appendix C) represent portions or areas of the Facility where materials are potentially exposed to precipitation and there is a reasonable potential for contribution of contaminants to storm water runoff. The potential risk for contribution of contaminants to storm water runoff from these areas was determined by considering the following factors.

- Toxicity and quantity of chemicals used, stored, or discharged.
- The likelihood of contact with storm water.
- The history of significant leaks or spills of toxic or hazardous materials.
- The ability of storage and loading areas to contain spills and leaks.
- The physical characteristics of the surface over which an industrial activity takes place (i.e. paved, gravel, soil).

The potential risk for contributing contaminants to storm water runoff from the Facility is low because of management practices that limit exposure of materials to precipitation.

3.3 SPILLS AND LEAKS

No spills have occurred that have resulted in a discharge to the wetlands or Slaughter Creek. The Facility will update and maintain a record of spills should they occur. This information is presented in Table 3, Appendix D. This list will be updated as a spill occurs. The record indicates the following information: date of spill; location; clean-up measures; and corrective actions. In the event that a spill or leak does not occur during a given calendar year, the Facility shall record “none” for that year. The purpose of this record, a spill/leak is defined as a release of five (5) gallons or more of a product OR a spill that results in the discharge of material to neighboring wetland/creek.

3.4 PRESENCE OF NON-STORMWATER DISCHARGES

A non-storm water discharge may exist if an outfall is observed to be discharging during dry conditions. Dry conditions are defined as 72 hours after the end of any significant

rainfall event. A non-storm water discharge may indicate a potential source of storm water pollution. Any unauthorized non-storm water discharge must be permitted or discontinued. However, there are several non-storm water discharges that are authorized by the permit, including:

- Discharge from fire fighting activities;
- Fire hydrant flushings;
- Potable water including water line flushings;
- Uncontaminated air conditioning or compressor condensate;
- Irrigation drainage;
- Landscape watering;
- Routine external building wash down that does not use detergents;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred;
- Foundation or footing drains where flow are not contaminated with process materials; and
- Incidental windblown mist from cooling towers.

An inspection has been conducted by Mr. Bruce Blessing to determine if non-storm water discharges, including but not limited to process water, air conditioner condensate, non-contact cooling water, vehicle or equipment wash water, or sanitary wastes were discharging to the storm water conveyance system at the Facility. The inspection incorporated a visual inspection of all storm water outfalls during dry weather conditions, a review of the aboveground and/or below ground pipe systems, and Facility interviews. The certification of non-storm water discharges is provided with the signature of this Plan by a responsible corporate officer. A *Non-Storm Water Discharge Assessment and Certification* is therefore certified by the signed plan (see Appendix E).

3.5 SUMMARY OF POTENTIAL POLLUTANT SOURCES

Based on the information evaluated above, Blessing Greenhouses and Compost Facility has identified several potential storm water pollutant sources associated with the Site's

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activities. These sources and corresponding potential pollutants are described in detail below.

3.5.1 Greenhouse Operations

The greenhouse operation most likely does not contribute any pollutants to storm water runoff from the Site. Roof drainage is the primary source of storm water from this operation. Outdoor storage of greenhouse materials primarily consists of plastic materials that would not be degraded by the weather. Potted plants ready for sale are occasionally stored outside. Six (6) propane tanks are utilized to operate the greenhouses. A release from these tanks would not impact storm water quality. An emergency generator is utilized to provide back-up power to the greenhouses should an outage occur. The emergency generator utilizes a 100 gallon diesel fuel tank which is self-contained; thus provided with secondary containment. Should a release of petroleum product occur, it would be contained within the unit.

3.5.2 Composting (Pre-Composting and Curing)

The Facility was issued a Secretary's Order in March 19, 2012 requiring the Site to employ specific best management practices (BMPs) to minimize/eliminate the discharge of storm water associated with the composting operation. If BMPs are not maintained, the potential exists for storm water coming into contact with the pre-composting and curing areas to discharge to the storm water outfalls and/or infiltrate to the groundwater system. The Facility will employ required measures to mitigate storm water discharges and groundwater infiltration as prescribed by Secretary's Order. These measures will be discussed in Section 4.0.

3.5.3 Soil Blending and Storage

The potential for storm water runoff from this operation on the Site is minimum. A vegetative berm on the south and west ends of the compost piles (downslope) is used to collect storm water and any entrained soil. On the east and north areas of the pile, storm

water runoff must travel over several hundred feet of both ornamental planting and agricultural field before being discharged/infiltrated. The potential pollutants from the area of operation may be sediment, nitrogen compounds and phosphorus. There is an economic incentive to prevent runoff loss of this valuable material. Additionally, a concrete pit which serves as a 50,000 gallon sump, is utilized to collect and contain storm water for land application activities.

3.5.4 Wood Fiber Grinding and Storage

The potential for storm water runoff from this activity is minimal. The wood fiber tends to adsorb large volumes of rainwater during a rain event and loose the water later through evaporation. Wood fiber is employed in the topsoil operation as an adsorbent to reduce the high potential for runoff from the activity.

3.5.5 Agricultural Operations

The potential for loss of the material to storm water runoff is minimal due to the field and on-Site transfer using vacuum trucks and dual shut-off valves. The containment structures disable storm water runoff.

3.5.6 Maintenance Activities

There are two (2) enclosed mechanical shops for equipment repair and maintenance. The potential for storm water runoff contamination is minimal as maintenance activities are performed indoors. When activities are not performed indoors, spill containment/control measures are employed to minimize the impact to the environment. Storm water runoff from vehicle parking must pass over stone driveways and/or pervious vegetated ground prior to exiting the Site.

It should be noted that contractors occasionally perform maintenance on equipment or vehicles at the Facility. These activities are performed at a minimum and will take place within the maintenance shops if feasible, or they will be performed outdoors. For

maintenance activities performed outdoors, adequate spill containment/control measures shall be employed.

Vehicle washing activities do occur at the Site, on an as needed basis. Washing activities are conducted in areas where waste wash water is infiltrated into the ground, allowed to evaporate, or collected and land applied. Detergents are typically not utilized for washing activities. If a detergent is utilized, it will be phosphate-free and bio-friendly.

3.5.7 Pesticide Application

Pesticide application has minimal storm water impacts as this activity is not conducted during storm events. Pesticide storage is minimal and occurs indoors.

3.5.8 Petroleum and Material Storage

AST-1 is a 1,000 gallon aboveground diesel fuel storage tank located near the Scale House (see Figure 2). AST-1 is constructed of steel. At this time AST-1 is not in use. The tank has been inspected and is determined to be empty. The tank is provided with a label indicating the tank is closed and out of service (with date). The Facility has removed and scrapped the former AST-2 tank which was a 2,000 gallon diesel fuel tank near the Maintenance Shop (closest to the Office). Should the Facility utilize the AST-1 in the future, the tank will be provided with secondary containment prior to filling with product. Although empty, the all tanks will still be inspected as part of the Facility's routine inspection program. Additionally, spill response measures are available and will be employed should a spill or leak occur. AST-3 is a 100 gallon diesel fuel tank provided as part of the emergency generator operation has been renumbered as AST-2. This tank is self-contained within the generator unit; therefore is provided with secondary containment.

An outside vendor, using a tank truck, fills both tanks. Spills associated with the transfer of diesel fuel have the potential to impact the quality of storm water discharges associated

with Outfall 001 due to its location within close proximity to the Outfall. Should a spill occur, spills associated with AST-1 and AST-2 will be discharged to the surrounding ground area where it will be contained on-site.

Drums and smaller containers of virgin petroleum products and antifreeze are stored inside the maintenance building and various greenhouses. The storage and handling of these drums and smaller containers could result in a spill or release if the drums and containers: are not stored under cover or on containment; their covers are not kept closed when not in used; or they are dropped or knocked over. Spills could also occur when product is dispensed or removed from the drums and containers.

3.5.9 Scrap Material and Solid Waste Storage

Dumpsters are utilized at the Facility and are staged near the bunker (curing) staging area. The number of dumpsters in use at the Site can vary, due to changes in the volume of activities. Typically, 5-6 dumpsters are in use at any given time and are used for general solid waste, cardboard, farm waste, refuse and scrap material storage. Because these containers are located outdoors, they represent a potential source of storm water contamination if not covered or contaminated material disposed. All dumpsters in use at the Facility will be covered to minimize the exposure of stored materials to storm water.

3.5.10 Lime Storage

Lime is occasionally stored at the Facility, and is staged on the asphalt and/or concrete pad located near the Scale House. Lime is brought to the Site as needed, based on customer demand, to address specific product components as part of the Soil Blending operation. Lime is brought and stockpiled in piles equivalent to 24 tons, on the pad to minimize the migration of material. The material is not staged indefinitely as it is brought on-Site as needed to complete customer orders. During rain events, the material shall be contained on the asphalt pad. However, in the event that material was to spill onto the

surrounding area during transfer operations, the product would be shoveled/swept back onto the pad.

3.6 IMPAIRED WATERBODIES

The Slaughter Creek is listed in the 2012 303(d) list as impaired for dissolved oxygen, nutrients, bacteria, PCBs and dioxins/furans. Although a TMDL for Slaughter Creek alone has not yet been compiled, the nutrient and bacteria parameters were included in the “TMDL Development for Mispillion and Cedar Creek” and this document provided allocations and load reductions for each section Slaughter Creek. The analytical monitoring required under this permit includes all parameters for which a TMDL currently exists.

3.7 MUNICIPAL SEPARATE STORM SEWER SYSTEM

Storm water is not discharged to a municipal separate storm sewer system.

4.0 STORMWATER CONTROL MEASURES

Based on the assessment of the potential pollutant sources described in Section 3.4, storm water control measures have been identified to prevent, eliminate, or reduce pollutant impacts on storm water discharges at the Blessing Greenhouses and Compost Facility. These control measures are described below.

4.1 GOOD HOUSEKEEPING PRACTICES

The potential for spills at the Facility can be greatly reduced by practicing good housekeeping and spill prevention. Maintaining clean and orderly work and material storage areas minimizes the possibility of accidental spills caused by the accumulation of trash and other waste materials, improper storage or handling of hazardous materials and wastes, or the poor condition of containers. In addition, the routine use of secondary containment structures and/or spill response materials and equipment, including absorbent pads, spill buckets, and containment pallets, can contain incidental leaks and spills of hazardous materials and wastes and prevent spill spills from entering drainage structures. Specific good housekeeping and spill prevention procedures have been developed for critical operations at the Facility. These procedures are described in the following sections.

4.1.1 Composting (Pre-Composting, Blending, Material Storage, Curing) and Greenhouse Operations

The Blessing Greenhouses and Compost Facility will ensure organic waste, pre-compost and compost materials are staged at appropriate, designated areas to ensure proper management. These areas will be checked daily to ensure the proper storage of materials and to prevent tracking. Designated field personnel will also inspect the compost curing (bunker) areas to ensure sufficient head space is provided to prevent the overflow during rain events. Bunkers will be checked daily and excess liquid will be removed as needed and land applied.

The Facility utilizes a vegetated berm, pits (depressions), sumps and grading to collect and control storm water discharges. The pre-compost area is provided with a vegetated berm that is located along the southern and eastern perimeter of this area. This berm prevents the discharge of storm water from this operation. Additionally, the pre-compost area utilizes a 50,000 gallon concrete pit to collect storm water. The collected storm water is then land applied in accordance regulatory requirements.

Five (5) sumps and depressions are utilized to collect storm water drainage from the bunker storage area and greenhouse locations. The sumps, as identified on Figure 2, are located in a series and have the ability to pump storm water from one sump to another, for management purposes. Storm water is collected from the sumps and land applied, as authorized by DNREC. At no time shall the Facility discharge accumulated storm water to Outfall locations.

The Facility will inspect all sumps, the pit, and depression areas after each rain event to ensure accumulated/collected storm water is managed properly. Accumulated storm water must be collected within 48 hours via vacuum truck to avoid the creation of mosquito habitat. Additionally, sweeping will occur, if needed, to ensure materials are staged as appropriate. The Facility shall implement and maintain storm water control measures identified in this Section to ensure storm water contact with Facility activities is minimized.

4.1.2 Vendor and Employee Fueling Operations

At this time, above ground storage tank AST-1 is out-of-service. The tank is labeled to indicate as much as well as indicate the out-of-service date. AST-1 may be utilized in the future for fueling activities. Prior to reinstating the tank back in service, the Facility will provide secondary containment for the tank. AST-2 is a self-contained tank, located within the Emergency Generator provided for Greenhouse operations. The tank is provided with secondary containment as it is located within the generator unit.

Vendors will be responsible for filling the above ground storage tanks with product. Filling operations are observed by Facility employees and spill response measures

(absorbent material and pads located in maintenance shops) are employed should a spill/leak occur. Staff will be trained to use caution in refueling equipment and are instructed to report spillage immediately. Additionally, staff will be trained to contain/clean-up spills immediately.

4.1.3 Petroleum and Material Product Storage

At this time, above ground storage tanks AST-1 is out-of-service. The tank is labeled to indicate as much as well as indicate the out-of-service date. AST-1 may be utilized in the future for fueling activities. Prior to reinstating the tank back in service, the Facility will provide adequate secondary containment for the tank, capable of holding the contents of the tank plus 10% freeboard. AST-2 is a self-contained tank, located within the Emergency Generator provided for Greenhouse operations. The tank is provided with secondary containment as should a spill occur, the material would be contained within the unit. As an extra precautionary measure, spill kits/absorbent materials are provided within close proximity (within the Maintenance Shops) to each of these tanks.

To prevent adverse impacts to storm water runoff in material storage areas, all drums and other containers of liquid products will be stored, where possible, on containment pallets, undercover, or inside a structure. Containment structures must be capable of holding at least the volume of the largest drum or container. In addition, all covers and bungholes will be kept closed when a drum or container is not in use. Any spills resulting from product transfers or from leaking containers will be addressed immediately by using absorbent materials and, if appropriate, by transferring fluids to new containers. In addition, the contents of the containers will be clearly labeled.

4.1.4 Agricultural Activities

- **Liquid Transport:** For land application, if tankers are not used for field application, they function as nurse trucks to supply field application vehicles. Tankers are equipped with internal baffles to minimize the movement of liquids inside the tanks. Non-hazardous organic waste is loaded into tankers with vacuum pumps and hoses. Standard pumps capable of handling solids can transfer the non-hazardous organic

waste, or tankers may contain built-in vacuum-pressure pumps. The vacuum systems are a benefit when transferring liquids containing higher percent solids.

- **Dewatered Non-Hazardous Organic Waste Transport:** Dewatered non-hazardous organic waste generally has solids content about 15 percent. Dried materials like compost or heat-dried pellets usually have much higher percent solids – 50%-90% respectively. Dewatered non-hazardous organic waste can be transported in specialized highway trucks, tractor-trailers and roll-off containers. Trailers are usually loaded at treatment facilities using conveyer belts, storage hoppers, or with front-end loaders for stockpiled material.

4.1.5 Equipment Maintenance

Leaks of engine fluids from vehicles and equipment used and staged at the Facility have the potential to impact storm water quality. The pollutants of concern are various lubricating oils and antifreeze. Minor maintenance activities such as oil changes and the topping off of fluids are performed at the Site. All major maintenance work is performed off-Site by a vendor. To the maximum extent practicable, all maintenance work on equipment/vehicles is performed indoors, under roof. At times, outdoor maintenance may be necessary and is kept at a minimum. However, in the event that maintenance activities are performed outdoors, spill pads and/or spill buckets (drip pans) will be placed beneath the equipment to contain any drips or leaks that may occur. Contractors performing maintenance activities at the Facility are expected to implement spill control measures to prevent spills from occurring. However, in the event that contractors do not provide spill control measures, the Facility shall provide such measures to include drip pans, buckets and spill absorbent material. An adequate supply of spill absorbent material in the form of spill absorbent pads, kitty litter and/or straw shall be maintained at the Facility at all times. This material is stored in the Maintenance Shops.

Trucks, trailers, roll-off boxes and farm equipment are frequently cleaned using high pressure water. A cleaning area is designated at the Blessing Greenhouses and Compost Facility for vehicle cleaning. Using high pressure water leaves a minimal amount of dirty

water. The cleaning area consists of a pervious gravel pad near the Maintenance Shop (located adjacent to the Office). Facility grading allows for the waste wash water to be directed/conveyed to the concrete pit located within the pre-compost area. Waste wash water is then vacuumed up and land applied. It should be mentioned that typically, detergents are not utilized as part of the washing process. However, if a soap is used, the soap will be phosphate-free and bio-friendly.

Roll-offs and dump trailers are internally cleaned using wood fibers or straw. The residual material is dumped into the compost operation.

4.1.6 Solid Waste Storage

Dumpsters are typically staged near the bunker staging area. Dumpsters utilized for general solid waste, cardboard, farm waste, refuse and scrap material storage shall be covered to minimize exposure of stored materials to storm water. The dumpsters will be inspected routinely to ensure material is not discharged to the surrounding ground area. Materials staged in the scrap boneyard will be drained of fluids, as practicable. This area will be inspected monthly to ensure staged material does not impact storm water quality.

4.2 PREVENTATIVE MAINTENANCE

To prevent the breakdown or failure of pollution prevention equipment, and to ensure the long-term operation, a storm water preventative maintenance program has been developed for the Facility. This program includes the following elements:

- Monthly inspections of the storm water outfalls and vegetated berm will be conducted to ensure: rip rap is maintained, swale is vegetated; erosion is not an issue; and ground cover is maintained.
- Daily inspections of the composting curing area (bunkers) to ensure proper sufficient head space is provided to prevent overflow during rain events.
- Daily inspections of sumps, concrete pit and depression areas to ensure accumulated storm water is vacuumed every 48 hours to avoid the creation of

mosquito habitat. In the event that collected storm water cannot be land applied within 48 hours, pesticide application will be provided by a certified applicator.

- Daily inspections and monthly documented inspections of sumps, concrete pit and depression areas to ensure proper function and maintenance.
- Monthly inspections of spill absorbent material to ensure adequate supply maintained.

Damaged structural controls will be repaired. Clogged or sediment-filled structural controls will be cleaned out regularly. Proper maintenance of structural controls as well as sediment and erosion control measures that are in-place at the Facility will greatly reduce the likelihood of sediment or debris discharging off-Site.

4.3 SPILL PREVENTION AND RESPONSE PROCEDURES

Upon a discovery of a spill or release of oil or a hazardous material, a Facility worker should take all feasible and safe steps to eliminate the source of the spill if possible or to contain or divert the spilled material to prevent it from entering the storm water conveyance system.

4.3.1 Spill Response Procedures

Spills and leaks are two (2) of the largest industrial sources of storm water pollution and, in most cases, are avoidable. Establishing standard spill prevention procedures, along with proper employee training, can reduce accidental releases. Avoiding spills and leaks is preferable to cleaning them up after they occur, not only from an environmental standpoint but also because spills cause increased operating costs and lower productivity. The following spill prevention procedures will be followed at the Facility:

- Any leaks, drips, or spills will be cleaned-up immediately with absorbent materials; and
- All used absorbent materials will be placed in proper containers for off-Site disposal.

All Facility personnel are instructed to contact their supervisor immediately upon discovery of a spill or release of fuel, oil, or hazardous material. The supervisor will verify that a spill exists and, to the best of his/her ability, determine what was spilled and the quantity. Also, any nearby surface waters will be visually inspected to determine whether they have been impacted. The supervisor will then notify Mr. Bruce Blessing.

On-Site spill response equipment and materials include, but are not limited to: saw dust, straw bales, kitty litter, shovels, dirt, sand, and absorbent materials (towels, mops, etc.) that may be used to dike, contain, and remove minor spills/releases of petroleum products and materials. If spill response is beyond the capabilities of the personnel and equipment on Site, an outside spill cleanup contractor will be called to remediate the release.

If large amounts of non-hazardous organic waste are spilled, straw bales will be used to form a barrier and/or absorb spilled non-hazardous organic waste. Saw dust is also maintained on Site to aid in spill response clean-up. Field personnel will use appropriate equipment to remove non-hazardous organic waste from the spill area. Such equipment may include front-end loaders, the vacuum equipment of liquid non-hazardous organic waste applicators and water trucks. A sufficient supply of shovels and brooms will also be provided to crewmembers cleaning up the spill. Non-hazardous organic waste will be removed from the spill area will be either spread on an approved application Site or taken to a permitted disposal Site.

Roadways will be swept or flushed with water as needed to clean the area. If the spill is on a non-paved and tillable area, the final residue will be incorporated into the soil. If it is on a private property, final cleanup will be completed to the satisfaction of the property owner.

Contractors performing vehicle/equipment maintenance activities will be responsible for providing adequate spill response measures to include drip pans and absorbent pads. In the event that a spill were to occur as a result of contractor maintenance activities, the contractor is required to maintain an adequate supply of spill absorbent material and utilize to contain and clean-up spilled material. The contractor will also be responsible for proper disposal of spent absorbent material. However, if the contractor is unable to

collect/contain spilled material, the Facility will employ appropriate spill response measures.

All major spills will be reported immediately to:

- Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Emergency Response Team and the Enforcement Section by calling: 1.800.662.8802.
- Emergency, Local Police and Fire Department: 911

Within 24 hours, the Site manager will send a written report detailing how the spill occurred, quantities and remedial action taken to:

- Marlene Baust, Environmental Engineer, DNREC GroundWater Discharges Section
- Jennifer Roushey, Program Manager, DNREC Surface Water Discharges Section

4.4 ELIMINATING/MIMIZING EXPOSURE

To minimize exposure to storm water, activities and materials will be conducted and staged as described within this SWPPP. The Facility will implement and maintain current BMPs as well implement specific actions as required by the March 2012 Secretary's Order. Actions required by the Secretary's Order are identified by the Compliance Scheduled provided in Section 4.6.

4.5 MINIMIZING EROSION

The erosion of sediment does not present a significant concern at the Facility at this time since existing landscaping, ballast, and paved areas effectively control the potential for erosion. Sites where soil is exposed to water, wind, or ice can erode and cause sediment pollution. Construction and other ground surface disturbing activities can accelerate erosion by removing vegetation, compacting, or disturbing the soil, changing natural drainage patterns, and by covering the ground with impervious surfaces (pavement, concrete, buildings). When the land surface is impervious, storm water can no longer infiltrate,

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resulting in larger amounts of water that can move more quickly across a Site and carry larger amounts of sediment and other pollutants.

The Facility will ensure that all grading and Site-disturbing activities comply with applicable erosion and sediment control requirements. Any erosion-prone areas identified at the Facility will be inspected and appropriate corrective measures (earth stabilization) will be taken. Erosion-prone areas include areas with such heavy activity that plants cannot grow, soil stockpiles, stream banks, construction areas, and any area where the soil is disturbed, denuded (stripped of plants), and subject to wind and water erosion. Measures that can be employed to limit and control erosion and sediment include:

- Leave as much natural vegetation and plants on-Site as possible;
- Minimize the time that soil is exposed;
- Prevent runoff from flowing across disturbed areas - divert the flow to vegetated areas;
- Stabilize the disturbed soils as soon as possible;
- Slow down the runoff flowing across the Site;
- Use grassy swales; and/or,
- Remove sediment from storm water runoff before it leaves the Facility by allowing it to sheet flow through vegetative buffers.

4.6 BEST MANAGEMENT PRACTICES

Based on the assessment of the potential pollutant sources identified in Section 3.0, best management practices (BMPs) have been identified to prevent, eliminate, or reduce pollutant impacts to storm water discharges at the Site. The BMPs discussed below, if implemented properly, will provide adequate protection to storm water quality.

Blessing Greenhouses and Compost Facility was issued a Secretary's Order, effective March 19, 2012, identifying required interim compliance measures. As a result, the Facility shall take the following actions, within the timeframe specified, as detailed

below. These actions will be maintained at the Facility and shall be considered best management practices (BMPS), utilized to minimize the exposure of storm water:

Action Implementation Date	Required Action
April 19, 2012	<p>The following locations shall be seeded with vegetation and properly stabilized utilizing a minimum of SCF-150 or equivalent. Top soiling of a minimum of four (4) inches may be required to properly establish vegetation. Upon establishment of vegetation, all vegetation must be maintained to ensure adequate coverage.</p> <ul style="list-style-type: none"> ○ The berm on the south and east of the Facility. ○ Areas adjacent to bunkers, as they are installed, that are not used for regulatory equipment traffic. A perimeter of vegetation around each bunker or series of bunkers must be maintained. ○ A minimum of a 30 foot vegetated buffer around the perimeter of the Facility excluding the north end of the Facility, entrances, or the bermed areas referenced above. <p>The approximately 15 foot wide swale located in the southwest end of the Site adjacent to the Facility office, running toward Slaughter Creek in a southerly direction along the tree line.</p> <p>Prevent nutrient rich storm water runoff, up to and including a 25-year 24-hour rainfall event, from entering into the forested wetland and Slaughter Creek, specifically from the pre-compost stockpile located on the southeast side of the Site and nutrient rich storm water from the finished compost (unless all finished compost in this location is removed from the Facility or isolated from contact storm water inside of the bunkers with an impervious liner located on the west side of the property. This shall be accomplished by constructing a vegetated earthen berm. Top soil shall be utilized in berm construction, if required</p>

Action Implementation Date	Required Action
	for vegetation establishment. Berm construction shall not disturb forested wetland. A 25-year 24-hour rainfall event means the runoff event produced by a storm having an annual probability of occurrence of 4% as defined by the National Weather Service Technical Paper Number 40, equivalent to regional or state rainfall probability information developed three from or a rain event resulting in 6.7 inches for Sussex county in a 24 hour period.
May 19, 2012	All compost in the active composting area (the area on and around the concrete composting pad in the southeast corner of the Facility), also known as the pre-compost area, must be placed on the concrete precompost pad. Compost that cannot fit on the concrete pad must be relocated into bunkers with an impervious liner to ensure that storm water and groundwater are not impacted.
June 19, 2012	<p>All compost that is located on pervious surfaces must be placed inside of bunkers with an impervious liner to ensure that storm water and groundwater are not impacted by compost leachate.</p> <p>All screened EQ compost stored in bunkers must be covered and protected from rainfall.</p> <p>All compost in the active composting area (also known as the pre-compost area) must remain on the concrete pad and a protective berm must be constructed around the pad ensuring leachate does not leave the pad or the compost/leachate does not come in contact with storm water.</p>
July 19, 2012	Starting at the southwest end of the pre-compost pad, at a minimum an area of 100 feet and the width of the pad north to the south, must be cleared of all compost and be inspected by the Department for integrity.
August 19, 2012	In addition to the area specified above, at a minimum an additional area of 100 feet and the width of the pre-compost pad north to south must be

Action Implementation Date	Required Action
	cleared of all compost and inspected by the Department for integrity.

Please note that action implementation dates may be extended as requested by the permittee and approved by DNREC.

4.7 MANAGEMENT OF RUNOFF

Storm water coming in contact with Facility composting operations is managed through infiltration, collection and land application. Storm water discharges associated with the north-east section of the Facility discharges as sheet flow to the surrounding areas where it infiltrates. A vegetated berm is provided along the south-eastern perimeter of the Facility, utilized to contain storm water associated with the pre-composting operation. Storm water accumulated in the pre-compost area is collected within a 50,000 gallon concrete pit and collected for land application. A series of sumps and depressions are utilized to collect storm water from the bunker staging area and greenhouse area, where collected storm water is land applied. ***At no time shall the Facility discharge collected storm water to Outfall #1 and Outfall #2.***

Storm water discharged to Outfall #1 is runoff associated with the Office and parking area, and is discharged to a vegetated swale. No industrial activities are performed in this area. Storm water runoff from western portion of the bunker area, in the form of sheetflow, is discharged via an vegetated swale to Outfall #2. The Facility has provided the bunkers with barriers and impervious liners to prevent groundwater/storm water contamination.

4.8. OFF SITE VEHICLE TRACKING

The Blessing Greenhouses and Compost Facility will ensure that organic waste and compost are not tracked onto driveways and uncontained areas. Materials will be staged in designated areas. Sweeping activities will take place to ensure products are staged appropriately.

4.9 SALT STORAGE PRACTICES

Salt is not stored at this Facility. In the event that the Facility stored or utilizes salt for deicing purposes, the Facility will manage salt storage piles in accordance with permit requirements. Specifically, such storage piles shall be enclosed to prevent exposure to precipitation. Appropriate measures shall be implemented to minimize exposure resulting from adding to or removing materials from the pile.

4.10 EMPLOYEE TRAINING

Facility employees must receive comprehensive annual training regarding the components and goals of the Plan. The training will address each Section of the Plan, with particular emphasis given to good housekeeping and spill prevention measures, Facility inspections, and spill response procedures. Additional training will be provided on an as-needed basis if new pollution control equipment becomes available, if necessitated by personnel changes, or whatever the SWPPP is significantly revised or amended.

5.0 INSPECTIONS

The Facility's General Industrial Storm Water Permit requires routine Site inspections and semi-annual Comprehensive Site Evaluations to ensure that the storm water control measures described in Section 4.0 are being implemented and are effective. These inspection programs are described below.

5.1 ROUTINE INSPECTION PROGRAM

Routine Facility inspections will be conducted at the Facility on a monthly basis. The purpose of monthly inspections is to identify conditions at the Site that could adversely impact storm water runoff and ensure management practices are implemented as described within the SWPPP. Each inspection will include an examination of all material storage areas, BMPs, the vegetated berm and associated ground cover (to ensure integrity), and outfall locations. All inspection findings and any necessary corrective actions will be documented using the Sites specific checklist contained in Appendix E. Any deficiencies noted shall be corrected as soon as practicable but no later than 14 days after the inspection.

5.2 COMPREHENSIVE SITE EVALUATIONS

In addition to performing routine Facility inspections, the General Industrial Storm Water Permit requires qualified personnel to conduct a Comprehensive Site Evaluation (CSE) on a semi-annual basis to evaluate the overall effectiveness of the SWPPP. The CSE must include a visual inspection of the Facility and a review of the SWPPP. The visual inspection will address all material storage and handling areas as well as operational areas that have the potential to impact the quality of storm water runoff. As a supplement to the visual inspection, a meeting will be held with key members of the PPT to review and evaluate the SWPPP. The Plan will be reviewed and evaluated for its effectiveness and whether improvements and/or modifications are warranted in accordance with the checklist provided in Appendix F. The results of the semi-annual CSE will be

documented in a report. As required, the report will include a summary of the scope of the CSE, identify the personnel taking part in the inspection and evaluation, describe the inspection observations, and provide recommendations for improving or updating the SWPPP if appropriate. In addition, the report will be signed by the permittee. All CSE reports will be kept on file at the Facility. All corrective actions and SWPPP revisions as identified during the CSE shall be addressed within 14 days of inspection completion.

5.3 SECONDARY CONTAINMENT INSPECTIONS

Currently, secondary containment is not provided for AST-1. Should AST-1 be placed back in service, secondary containment will be provided prior to filling the tank. Once provided, a visual inspection by a Facility employee shall be conducted before accumulated storm water is released from a secondary containment system. The system shall be observed for color, foam, outfall staining, visible sheen and dry weather flow prior to release. Accumulated storm water shall be released if found to be uncontaminated by the material stored within the containment areas. Records documenting the individual making the observation, the description of the accumulated storm water and the date and time of the release shall be maintained. Since AST-2 is a self-contained tank, storm water accumulation is prevented; therefore secondary containment inspections are not required.

6.0 MONITORING

The General Industrial Storm Water Permit requires both a visual assessment and analytical testing of storm water samples collected at a Facility to determine the effectiveness of storm water controls. These monitoring requirements are described below.

6.1 QUARTERLY VISUAL MONITORING

Blessings Greenhouses and Compost Facility shall conduct and document quarterly visual examinations of storm water discharges associated with industrial activities at the Facility as described in *Regulations Governing Storm Water Discharges Associated with Industrial Activities*. The examination(s) must be made at Outfall Nos. 1 and 2, and shall be made at least once in each of the following three-month periods: January through March; April through June; July through September; and October through December. Each examination must document observations of color, odor, clarify, floating solids, settled solids, suspended solids, foam, oil sheen and other obvious indicators of storm water pollution. Additionally, the examinations will document observed conditions of the Facility's vegetated berm and associated ground cover to ensure structural integrity. Each examination must be performed during daylight hours and must be made within the first thirty (30) minutes of when runoff or snowmelt begins discharging from the Facility. If no storm event resulted in runoff from the Facility during a monitoring quarter, the Facility shall document all attempts at collecting samples of storm water, to include dates/times of storm events and storm data.

6.2 SEMI-ANNUAL ANALYTICAL MONITORING

Blessing Greenhouses and Compost Facility shall sample storm water discharges from Outfalls #1 and #2, in accordance with the instructions outlined in the State of Delaware *Regulations Governing Storm Water Discharges Associated with Industrial Activities*. Monitoring shall be completed semi-annually, occurring at least once in each of the

following six-month periods: January through June and July through December. Storm water samples shall be analyzed for the following parameters:

Parameters	Units	Benchmark Monitoring Concentrations
Total Suspended Solids	mg/l	100.00
Biological Oxygen Demand	mg/l	30.0
Oil and Grease	mg/l	15.0
Ammonia as Nitrogen	mg/l	19.0
Nitrate plus Nitrite Nitrogen	mg/l	0.68
Phosphorus	mg/l	2.0
Total Recoverable Iron	mg/l	1.0
Total Recoverable Lead	mg/l	0.0816
Total Recoverable Zinc	mg/l	0.117
pH	S.U.	6-9
Enterococcus	Col./100 ml	--
Fecal Coliform	Col./100 ml	--

Where indicated, monitored results shall be compared to Benchmark Monitoring Concentrations. The Benchmark Monitoring Concentration values represent target pollutant concentrations for a Facility to achieve through implementation of its SWPPP. Analytical results that exceed Benchmark Concentration values are not a violation; however results that exceed a Benchmark Concentration value are indications that the storm water discharge could potentially cause or contribute to causing water quality impairment in the receiving water body. The Benchmark Concentration values are also viewed, as a level that if below, the discharge presents little potential for water quality concern.

In the event that analytical results exceed Benchmark Monitoring Concentration values, the Facility shall investigate the cause for such exceedance and the results of this investigation shall be documented. The results of the investigation shall identify potential

sources of pollution, additional best management practices necessary and revision of the SWPPP. Background concentrations of specific pollutants may also be considered during the investigation.

If no storm event resulted in runoff from the Facility during a monitoring quarter, the Facility shall document all attempts at collecting samples of storm water, to include dates/times of storm events and storm data.

6.3 TMDL MONITORING

The Slaughter Creek is listed in the 2012 303(d) list as impaired for dissolved oxygen, nutrients, bacteria, PCBs and dioxins/furans. Although a TMDL for Slaughter Creek alone has not yet been compiled, the nutrient and bacteria parameters were included in the “TMDL Development for Mispillion and Cedar Creek” and this document provided allocations and load reductions for each section Slaughter Creek. The analytical monitoring required under this permit includes all parameters for which a TMDL currently exists.

7.0 SECURITY

Proper security of the Facility grounds and industrial materials storage areas is an important consideration in the prevention of discharge of industrial materials. Individual building security is maintained by locking doors and equipment after normal working hours. Access must be granted to enter the Facility.

8.0 RECORDKEEPING

In accordance with the permit, various records must be kept on file to document permit compliance. These records include quarterly Facility inspection checklists, quarterly storm water visual examination checklists, analytical monitoring, training records, and annual CSE reports. Records will be maintained for a period of five (5) years.

APPENDIX A

GENERAL INDUSTRIAL STORM WATER PERMIT

APPENDIX B

TABLE 1 - POLLUTION PREVENTION TEAM MEMBERS

NAME	TITLE	RESPONSIBILITIES	TELEPHONE NUMBER	
			OFFICE	CELL
Bruce Blessing	Owner	Oversee implementation and maintenance of SWPPP to include inspections, training, BMP implementation, spill response, and monitoring	302.684.8990	Ex. 6 Personal Privacy (PP)
Gary Blessing	Farm Manager	BMP implementation and maintenance and spill response	302.684.8990	Ex. 6 Personal Privacy (PP)
Johnny Hufford	Scale Master Yard Supervisor	BMP implementation and maintenance and spill response	302.684.8990	N/A
Carl Smith	Heavy Equipment Manager	BMP Implementation and Maintenance and spill response	302.684.8990	N/A

APPENDIX C

TABLE 2 - INVEVNTORY OF EXPOSED MATERIALS

Material	Discharge Potential	Storage/Disposal Method	Storage/Disposal Location	Quantity
Compost (Raw and Finished Organic Material)	Low	Pre-Compost material is blended within a bermed area and stored on concrete pad. Compost material is then cured in enclosed bunker system.	See Facility Map	120,000 tons
Wood Fiber (Bulking Agent)	Low	Wood fiber is stored on ground surface and adsorbs water.	See Facility Map.	25,000 tons
Topsoil	Low	Raw soil is stored for screening and blending with compost.	See Facility Map	40,000 tons
Fuel Oil	Medium	Two ASTs; 1,000 gallon tank and 100 gallon tank used to store diesel. Absorbent Material Provided	See Facility Map.	Up to 1,100 gallons
Drums of oil and antifreeze	Low	Stored indoors.	See Facility Map	Up t 25-55 gallon drums
Screened Compost	Low	Stored on concrete pad next to scale house.	See Facility Map	Up to 10,000 pounds
Consumer Compost	Low	Stored in 3-sided concrete bin near scale house.	See Facility Map	Up to 10,000 pounds
Lime	Low	Stored on concrete pad/asphalt next to scale house.	See Facility Map	Up to 48 tons
Pesticides	Low	Stored indoors, in maintenance shops/office.	See Facility Map	Up to 2 containers.

APPENDIX D

TABLE 3 - RECORD OF SPILLS AND LEAKS

DATE OF SPILL	MATERIAL SPILLED	QUANTITY SPILLED	CAUSE OF SPILL	ACTIONS TAKEN TO CLEAN SPILL
2012	N/A – no spill occurred	N/A	N/A	N/A
2013	N/A – no spill occurred	N/A	N/A	N/A

APPENDIX E

NON-STORM WATER CERTIFICATION

The Storm Water Plan shall include measures to identify and eliminate the discharge of process wastewater, domestic wastewater, non-contact cooling water and other illicit discharges to storm water drainage systems or to surface waters of the State. An inspection of the Facility was completed in June 2012. At that time no non-storm water discharges were observed. The following certification shall serve to meet the requirements of the storm water regulations.

CERTIFICATION	
I _____ (owner), certify that no non-storm water discharges to the storm water system exist at the Blessings Greenhouses and Compost Facility.	
Name and Official Title:	Area Code and Telephone No.:
Signature:	Date Signed:

APPENDIX F

MONTHLY INSPECTION FORM

[PAGE * MERGEFORMAT]

MONTHLY STORMWATER INSPECTION CHECKLIST [INCLUDE PICTURE
["http://www.tnquest.com/getimg.asp?id=85170899"](http://www.tnquest.com/getimg.asp?id=85170899) * MERGEFORMATINET]

BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE

Inspector:		Date:		
Company:		Last Inspection:		
Item No.	Storm Water Inspection Checklist	Status		
		Yes	No	NA
General				
1.	Have any changes occurred at the Facility that could affect storm water drainage? If yes, describe in <i>Comments</i> section.			
2.	Are there any new operations or materials stored outside that could impact storm water drainage? If yes, describe in <i>Comments</i> section.			
3.	Have any spills or releases occurred at the Facility since the last inspection. If yes, describe in <i>Comments</i> section.			
4.	In general, are the good housekeeping procedures and preventative maintenance measures described in the SWPPP being implemented?			
AST-1, AST-2 and Drum Storage				
5.	Are the tanks and associated piping in good condition?			
6.	Is there evidence of spills or leaks from the tanks or drums?			
7.	Is there evidence of spills or leaks related to tank piping or at the tank fill ports?			
8.	Is a fully stocked spill kit or adequate supply of spill absorbent material located nearby?			
9.	Does the exterior of the storage structures (tanks and drums) exhibit signs of corrosion or deterioration?			
10.	Is there evidence of product leaking from any of the storage structures or of spills on the pavement in front of them?			
11.	Are all drums in good condition, labeled and closed? Are drums stored in accordance with SWPPP requirements?			
Composting Operations and Greenhouses				
12.	Compost operations inspected to ensure materials stored/managed in accordance with SWPPP. Specifically, observe the pre-compost, curing area, raw wood storage pile, topsoil pile, shredded wood pile, screened pile, mulch piles.			

**MONTHLY STORMWATER INSPECTION CHECKLIST [INCLUDEPICTURE
"http://www.tnquest.com/getimg.asp?id=85170899" * MERGEFORMATINET]**

BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE

Item No.	Storm Water Inspection Checklist	Status		
		Yes	No	N/A
13.	Bunkers have sufficient head space to prevent overflow during rain events.			
Solid Waste Storage and Scrap Storage				
14.	Any evidence of leaks or spills from dumpsters/boneyard storage area?			
Vehicle Maintenance Area				
15.	Maintenance performed indoors? Adequate supply of spill absorbent material maintained?			
16.	Signs of Staining?			
17.	Washing Activities performed in designated area?			
Storm Water Collection Areas and Outfalls				
18.	Storm water outfalls provided with sign, designating outfalls as No. 1 and No. 2?			
19.	Erosion present at outfall locations or within storm water conveyance system?			
20.	Vegetated berm maintained? Is the berm structurally sound with adequate ground cover maintained?			
21.	Concrete pit, depressions and sumps functioning properly? Adequately maintained? Drainage ditch plugged to prevent discharge to Outfall #1?			
22.	Bunker staging area graded to direct storm water to depression areas for collection? Depression areas maintained and functioning properly?			
23.	Is storm water collected from concrete pit, sumps, drainage ditch and depression areas within 48 hours for land application? Pesticide application provided as necessary?			
Item No.	Comments			

MONTHLY STORMWATER INSPECTION CHECKLIST		
BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE		
Item No.	Corrective Actions Taken	Date

Manager Certification
<p><i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i></p> <p>_____</p> <p>Signature of Facility Manager/Date</p>

APPENDIX G

SEMI-ANNUAL COMPREHENSIVE SITE EVALUATION

[PAGE * MERGEFORMAT]

SEMI-ANNUAL COMPREHENSIVE SITE EVALUATION [INCLUDEPICTURE "http://www.tnquest.com/getimg.asp?id=85170899" * MERGEFORMATINET] BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE	
Inspector:	Date:
Company:	Last Inspection:
Item No.	Storm Water Inspection Checklist
1	Verify that the description of Facility operations and material storage given in the SWPPP is still accurate. Is the description still accurate? <input type="checkbox"/> Yes <input type="checkbox"/> No
2	Verify that the description of Site drainage and storm water management structures given in the SWPPP is still accurate. Is the description still accurate? <input type="checkbox"/> Yes <input type="checkbox"/> No
3	Verify that the potential pollutant sources identified in the SWPPP are comprehensive. Are all pollutant sources accounted for and identified? <input type="checkbox"/> Yes <input type="checkbox"/> No
4	Review the BMPS identified in the SWPPP and evaluate their effectiveness. Are the BMPs still effective? <input type="checkbox"/> Yes <input type="checkbox"/> No
5	Review the Monthly Storm Water Inspection and Comprehensive Site Inspection Reports for the last six months. Are there any unresolved issues? <input type="checkbox"/> Yes <input type="checkbox"/> No
6	Verify storm water outfalls are maintained as required. Verify vegetated berm is structurally sound and integrity is maintained. Verify sufficient ground cover has been provided in the vicinity of the berm. Are there signs of erosion or pollutant discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No
7	Verify no non-storm water discharges exist. Are there non-storm water discharges present at the Facility? <input type="checkbox"/> Yes <input type="checkbox"/> No
8	Verify concrete pit, depressions, drainage ditch and sumps utilized for storm water

SEMI-ANNUAL COMPREHENSIVE SITE EVALUATION [INCLUDE PICTURE "http://www.tnquest.com/getimg.asp?id=85170899" * MERGEFORMAT] BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE

	collection are maintained and functioning properly. Verify collected storm water is land applied within 48 hours and necessary pesticide application occurs. Are structures maintained? Yes No
--	--

9	Confirm the list of PPT Members Does the list need to be updated? <input type="checkbox"/> Yes <input type="checkbox"/> No
----------	--

10	Confirm routine inspection program and storm water monitoring programs are implemented as required. Are programs implemented? <input type="checkbox"/> Yes <input type="checkbox"/> No
-----------	--

Based on the evaluation performed above, do any sections of the SWPPP need to be updated? <input type="checkbox"/> Yes (see comments below) <input type="checkbox"/> No	
---	--

Item No.	Comments

Item No.	Corrective Actions Taken	Date

Manager Certification <i>I certify under penalty of law that this document and all attachments were prepared under my direction</i>

or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____/Signature of Facility Manager/Date

APPENDIX H

QUARTERLY VISUAL STORM WATER EXAMINATION

[PAGE * MERGEFORMAT]

QUARTERLY VISUAL STORM WATER EXAMINATION CHECKLIST BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE			
Inspector Name: _____		Date: _____	
Signature: _____			
General Information			
Sample Location: <u>Outfall 001 and Outfall 002</u>			
Date of Sampling: _____		Time of Sampling: _____	
Storm Event Data			
Time since beginning of storm event:			
<input type="checkbox"/> <30 min. <input type="checkbox"/> >30 min. but < 60 min. <input type="checkbox"/> >60 mins.			
Amount of rainfall (inches): _____ Source of rainfall data: _____			
Data of last significant rainfall: _____			
Physical Characteristics of Storm Water			
Physical Ch.	Yes	No	Description
Color			
Odor			
Clarity			
Floating Solids			
Suspended Solids			
Settled Solids			
Foam			
Oil Sheen			
Other indicators of storm water pollution			
Vegetated Berm			
Is the vegetated berm structurally sound? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Has the integrity of the vegetated berm been compromised, resulting in a discharge of storm water? Yes No			
Is sufficient ground cover provided and maintained? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Other			
Any additional storm water outfalls observed? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Any non-storm water discharges observed? <input type="checkbox"/> Yes <input type="checkbox"/> No			

QUARTERLY VISUAL STORM WATER EXAMINATION CHECKLIST BLESSING GREENHOUSES AND COMPOST FACILITY, MILFORD, DE	
Comments	
Item No.	Description
Manager Certification <i>I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate, and complete to the best of my knowledge and belief.</i>	
Name: _____	Signature: _____
Title: _____	Date: _____

[PAGE * MERGEFORMAT]

APPENDIX I

STORM WATER ANALYTICAL MONITORING RESULTS

STORM WATER MONITORING RESULTS - SUMMARY

Date: _____

Sample Location: _____

Date of Sampling: _____ Time of Sampling: _____

Storm Event

Time since beginning of storm event:

☐ <30 min. ☐ >30 min. but < 60 min. ☐ >60 mins.

Amount of rainfall (inches): _____ Source of rainfall data: _____

Data of last significant rainfall: _____

Monitored Results

Parameter	Method	Results	Benchmark	Benchmark Exceeded	
TSS			100 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
BOD			30 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
O&G			15 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Ammonia			19 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Nitrate plus Nitrogen			0.68 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Phosphorus			2 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Iron			1 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Lead			0.0816 mg/l	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Zinc			0.117 mg/l		
pH			6-9 s.u.		
Enterococcus			--		
Fecal Coliform			--		

Please provide an explanation for each benchmark exceedance.

Manager Certification

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I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate, and complete to the best of my knowledge and belief.

Name: _____

Signature: _____

Title: _____

Date: _____